391



SEQUENCE LISTING

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| £ | <110> | Lyamichev, Victor | |
| | | Allawi, Hatim | |
| | | Dong, Fang | |
| | | Neri, Bruce | |
| | | Vener, Tatiana | |
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| <210> | 116 | |
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| <210> | 121 | |
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| <211> | 18 | |
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| <210> | 123 | |
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| <210> | 124 | |
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| <210> | 126 | |
| <211> | 14 | |
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| <210> | 127 | |
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| <220> | | |
| <221> | misc_feature | |
| <222> | (15)(16) | |
| <223> | The residue at this position can be any nucleotide. | |
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| <210> | 128 | |
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     Synthetic
<223>
<220>
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taaggtagga ctacnnnn
<210> 129
<211> 20
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<223> The residue at this position can be any nucleotide.
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                                                                     20
taaggtagga ctacnnnnnn
<210> 130
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                                                                     22
taaggtagga ctacnnnnn nn
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| <210> | 131 | |
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| <211> | 24 | |
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| <220> | | |
| <223> | Synthetic | |
| <220> | | |
| <221> | misc_feature | |
| <222> | (15)(24) | |
| <223> | The residue at this position can be any nucleotide. | |
| <400> taaggt | 131 agga ctacnnnnn nnnn | 24 |
| <210> | 132 | |
| <211> | 26 | |
| <212> | DNA | |
| <213> | Artificial Sequence | |
| <220> | | |
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| <220> | | |
| <221> | misc_feature | |
| <222> | (15)(26) | |
| <223> | The residue at this position can be any nucleotide. | |
| <400> taaggt | 132 agga ctacnnnnn nnnnnn | 26 |
| <210> | 133 | |
| <211> | 30 | |
| <212> | DNA | |
| <213> | Artificial Sequence | |

| <220> | | |
|-----------------|---|----|
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| <220> | | |
| <221> | misc_feature | |
| <222> | (15)(30) | |
| <223> | The residue at this position can be any nucleotide. | |
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| <211> | 14 | |
| <212> | DNA | |
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| <400> ttttcc | 134 caacc ttaa | 14 |
| <210> | 135 | |
| <211> | 22 | |
| <212> | DNA | |
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| <220> | | |
| <223> | Synthetic | |
| <220> | | |
| <221> | misc_feature | |
| <222> | (15)(22) | |
| <223> | The residue at this position can be any nucleotide. | |
| <400> | 135 caacc ttaannnnnn nn | 22 |

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<210> 136
<211> 26
<212> DNA
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<223> Synthetic
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<221> misc_feature
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<400> 136
ttttccaacc ttaannnnnn nnnnnn
                                                                     26
<210> 137
<211> 14
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<213> Artificial Sequence
<220>
<223> Synthetic
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<221> misc_feature
<222> (1)..(14)
<223> The residues in these positions are 2'-O-methyl nucleotides.
<400> 137
gtagtcctac ctta
                                                                     14
<210> 138
<211> 14
<212> DNA
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<223> Synthetic
<220>
<221> misc_feature
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<222> (1)..(14)
 <223> The residues in these positions are 2'-O-methyl nucleotides.
<400> 138
                                                                      14
 ttaaggttgg aaaa
 <210> 139
 <211>
       24
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 <221> misc_feature
 <222> (15)..(24)
 <223> The residue at this position can be any nucleotide.
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 ttttccaacc ttaannnnnn nnnn
                                                                      24
 <210> 140
 <211> 21
 <212> DNA
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 <220>
 <223> Synthetic
 <220>
 <221> misc_feature
 <222> (1)..(1)
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ngcatcgttt tgggttctct t
 <210> 141
 <211> 987
 <212> RNA
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| <213> Art | > Artificial Sequence | | | | | |
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| ggaccugauc | agcuugauac | aagaacuacu | gauuucaacu | ucuuuggcuu | aauucucucg | 120 |
| gaaacgauga | aauauacaag | uuauaucuug | gcuuuucagc | ucugcaucgu | uuuggguucu | 180 |
| cuuggcuguu | acugccagga | cccauaugua | caagaagcag | aaaaccuuaa | gaaauauuuu | 240 |
| aaugcagguc | auucagaugu | agcggauaau | ggaacucuuu | ucuuaggcau | uuugaagaau | 300 |
| uggaaagagg | agagugacag | aaaaauaaug | cagagccaaa | uugucuccuu | uuacuucaaa | 360 |
| cuuuuuaaaa | acuuuaaaga | ugaccagagc | auccaaaaga | guguggagac | caucaaggaa | 420 |
| gacaugaaug | ucaaguuuuu | caauagcaac | aaaaagaaac | gagaugacuu | cgaaaagcug | 480 |
| acuaauuauu | cgguaacuga | cuugaauguc | caacgcaaag | caauacauga | acucauccaa | 540 |
| gugauggcug | aacugucgcc | agcagcuaaa | acagggaagc | gaaaaaggag | ucagaugcug | 600 |
| uuucgagguc | gaagagcauc | ccaguaaugg | uuguccugcc | uacaauauuu | gaauuuuaaa | 660 |
| ucuaaaucua | uuuauuaaua | uuuaacauua | uuuauauggg | gaauauauuu | uuagacucau | 720 |
| caaucaaaua | aguauuuaua | auagcaacuu | uuguguaaug | aaaaugaaua | ucuauuaaua | 780 |
| uauguauuau | uuauaauucc | uauauccugu | gacugucuca | cuuaauccuu | uguuuucuga | 840 |
| cuaauuaggo | aaggcuaugu | gauuacaagg | cuuuaucuca | ggggccaacu | aggcagccaa | 900 |
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| <211> 589 | • | | | | | |
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660

720

780

840

900

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| cgctctc | tca cccaggct | tgg agtgcagtgg | tgcaatcatg | gttcactgca | gtcttgacct | 2820 |
|------------------|----------------------|----------------|------------|------------|------------|------|
| tttggg | tca agtgatco | ctc ccacctcagc | ctcctgagta | gctgggacca | taggctcaca | 2880 |
| acaccac | acc t | | | | | 2891 |
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| ugcuuaa | agcc | ucaauaaagc | uugccuugag | ugcuucaagu | agugugugcc | cgucuguugu | 120 |
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| gccugui | ıaga | aacaucagaa | ggcuguagac | aaauacuggg | acagcuacaa | ccaucccuuc | 540 |
| agacag | gauc | agaagaacuu | agaucauuau | auaauacagu | agcaacccuc | uauugugugc | 600 |
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| gccaaaa | auua | cccuauagug | cagaacaucc | aggggcaaau | gguacaucag | gccauaucac | 780 |
| cuagaad | cuuu | aaaugcaugg | guaaaaguag | uagaagagaa | ggcuuucagc | ccagaaguga | 840 |
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| gauuaaauaa aauaguaaga auguauagcc cuaccagcau ucuggacaua agacaaggac | 1200 |
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| auuguaagac uauuuuaaaa gcauugggac cagcggcuac acuagaagaa augaugacag | 1380 |
| caugucaggg aguaggagga cccggccaua aggcaagagu uuuggcugaa gcaaugagcc | 1440 |
| aaguaacaaa uucagcuacc auaaugaugc agagaggcaa uuuuaggaac caaagaaaga | 1500 |
| uuguuaagug uuucaauugu ggcaaagaag ggcacacagc cagaaauugc agggccccua | 1560 |
| ggaaaaaggg cuguuggaaa uguggaaagg aaggacacca aaugaaagau uguacugaga | 1620 |
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| <212> RNA | |
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| gaaguaauac cacuaacaga agaagcagag cuagaacugg cagaaaacag agagauucua | 180 |
| aaagaaccag uacauggagu guauuaugac ccaucaaaag acuuaauagc agaaauacag | 240 |
| aagcaggggc aaggccaaug gacauaucaa auuuaucaag agccauuuaa aaaucugaaa | 300 |
| acaggaaaau augcaagaau gaggggugcc cacacuaaug auguaaaaca auuaacagag | 360 |
| gcagugcaaa aaauaaccac agaaagcaua guaauauggg gaaagacucc uaaauuuaaa | 420 |
| cugcccauac aaaaggaaac augggaaaca ugguggacag aguauuggca agccaccugg | 480 |
| auuccugagu gggaguuugu uaauaccccu cccuuaguga aauuauggua ccaguuagag | 540 |
| aaagaaccca uaguaggagc agaaaccuuc uauguagaug gggcagcuaa cagggagacu | 600 |
| aaauuaggaa aagcaggaua uguuacuaau agaggaagac aaaaaguugu cacccuaacu | 660 |
| gacacaacaa aucagaagac ugaguuacaa gcaauuuauc uagcuuugca ggauucggga | 720 |
| uuagaaguaa acauaguaac agacucacaa uaugcauuag gaaucauuca agcacaacca | 780 |
| gaucaaagug aaucagaguu agucaaucaa auaauagagc aguuaauaaa aaaggaaaag | 840 |
| gucuaucugg cauggguacc agcacacaaa ggaauuggag gaaaugaaca aguagauaaa | 900 |
| uuagucagug cuggaaucag gaaaguacua uuuuuagaug gaauagauaa ggcccaagau | 960 |
| gaacaugaga aauaucacag uaauuggaga gcaauggcua gugauuuuaa ccugccaccu | 1020 |
| guaguagcaa aagaaauagu agccagcugu gauaaauguc agcuaaaagg agaagccaug | 1080 |
| | |

| cauggac | aag | uagacuguag | uccaggaaua | uggcaacuag | auuguacaca | uuuagaagga | 1140 |
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| uggauaaacc cgcucaaugc cuggagauuu gggcgugccc ccgcaagacu gcuagccga | ıg 240 |
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| uccacgccgg | cuucucaaca | gagucccaga | ggagcaggca | ggacagcauu | cugagcagcu | 840 |
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| accuau | cuuc uucgacacau g | ggauaacga | ggcuuaugug | cacgaugcac | cuguacgauc | 360 |
| acugaa | cugc acgcuccggg a | acucacagca | aaaaagcuug | gugaugucug | guccauauga | 420 |
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| agaugaa | aug | ggugauccgc | agccaagucc | uaagggcauu | uuugucuaug | gaugcaguuc | 240 |
| aacgacu | aga | uggcaguggg | uauuguaagg | aauugcaguu | uucuugcagu | gcuuaaggua | 300 |
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| gaug | | , , , | _ | | | 244 |